

PRECALCULUS: MATHEMATICS FOR CALCULUS

Problem solving and mathematical modeling are introduced early and reinforced throughout. This comprehensive, evenly paced book provides complete coverage of the function concept and integrates substantial graphing calculator materials.

Contract Price

\$114.25

Grade

9,10,11,12

TYPE

P1

Copyright

2008

AuthorStewart/ Redlin/
WatsonEdition

5th

Content

Precalculus

Readability

9.4

Accessibility

Nimas

Research

Teacher Edition		
9780495557050		\$113.00
Annotated Instructor's Edition, Precalculus : Mathematics for Calculus		
Essential Items		
Ancillary Items		
9780534492908	Nimas	\$38.50
Student Solutions Manual, Precalculus : Mathematics for Calculus		
9780534492892	Nimas	\$36.25
Study Guide, Precalculus : Mathematics for Calculus		
Free with Purchase items		
9780495019947	ExamView, Precalculus : Mathematics for Calculus	\$50.00
Free 1 per 20 Textbooks Purchased		
9780534492892	Study Guide, Precalculus : Mathematics for Calculus	\$36.25
Free 1 per 20 Textbooks Purchased		
9780534492908	Student Solutions Manual, Precalculus : Mathematics for Calculus	\$38.50
Free 1 per 20 Textbooks Purchased		
9780534492991	Test Bank, Precalculus : Mathematics for Calculus	\$25.00
Free 1 per 20 Textbooks Purchased		
9780534493004	Instructor's Guide, Precalculus : Mathematics for Calculus	\$25.00
Free 1 per 20 Textbooks Purchased		
9780534493097	Video: Precalculus : Mathematics for Calculus	\$105.00
Free 1 per 20 Textbooks Purchased		
9780534493165	Complete Solutions Manual, Precalculus : Mathematics for Calculus	\$26.25
Free 1 per 20 Textbooks Purchased		

Evaluation Tool for Basal Instructional Materials
Mathematics (2009 – 2015)

Provided by the Publisher	ISBN 9780495392774		Publisher - Cengage Learning	
	PRECALCULUS: MATHEMATICS FOR CALCULUS			
	Type - P1	Author - Stewart/ Redlin/ Watson		
	Copyright - 2008	Edition - 5th	Readability - 9.4	
	Course - Precalculus		Grade(s) - 9,10,11,12	
	Teacher Edition ISBN if applicable 9780495557050			

Overall Recommendation:

Recommended as BASAL

Overall Strengths, Weaknesses, Comments:

if this box is not checked, the evaluators have
chosen NOT recommend as basal

This is a very typical Precalculus text.

NIMAC Accessibility N
Ancillary Yes
Free with Purchase Yes
Research No

Problem solving and mathematical modeling are introduced early and reinforced throughout. This comprehensive, evenly paced book provides complete coverage of the function concept and integrates substantial graphing calculator materials.

CRITERIA

This basal resource ...

A. Encompasses KY Content Standards & Grade Level Expectations Strong Evidence

Text is designed to be used in an elective course outside the Program of Studies

1) Includes the 5 Big Ideas of mathematics to the following extent:

- | | |
|--|-----------------------|
| a) Number Properties and Operations | Strong Evidence |
| b) Measurement | Little or No Evidence |
| c) Geometry | Little or No Evidence |
| d) Data Analysis and Probability | Little or No Evidence |
| e) Algebraic Thinking | Strong Evidence |

2) Addresses content-specific enduring understandings from the related Program of Studies standards.

Strong Evidence

3) Addresses content-specific skills and concepts from the related Program of Studies standards.

Strong Evidence

4) Content addressed is current, relevant and non-trivial

Moderate Evidence

5) Provides opportunities for critical thinking/reasoning

Strong Evidence

6) Strengths, Weaknesses, Comments:

- Specific strengths-which areas/concepts are covered exceptionally well?
- Specific weaknesses-which areas/concepts would likely require supplementing?

This is a typical Precalculus text. Some examples and content are the same seen in previous textbooks. However, they are still relevant. Some examples are somewhat contrived and trivial, however, at this level of mathematics that is often the case.

B. Functionality & Suitability

Moderate Evidence

1) Suitability

Strong Evidence

- Should be suitable for use with a diverse population and is free of bias regarding race, age, ethnicity, gender, religion, social and/or geographic environment; is free of stereotyping or bias of any kind.

2) Content quality

Strong Evidence

- Free from factual errors
- Content is presented conceptually when possible—more than a mere collection of facts
- Content included accurately represents the knowledge base of the discipline
- Theories/scientific models contained represent a broad consensus of the scientific community
- Interconnections among mathematical topics

3) Connections to Literacy

Little or No Evidence

- Employs a variety of reading levels and is grade/level appropriate
- Use of multiple representations-concrete, visual/spatial, graphs, charts, etc.
- Provides opportunities for summarizing, reviewing, and reinforcing vocabulary skills and concepts at multiple levels of difficulty for a variety of learning styles.
- Student text provides opportunity to integrate reading and writing
- Uses vocabulary that is age and content appropriate
- Focuses on critical vocabulary vs. extensive lists
- Identifies key vocabulary through definitions in both text and glossary
- The text is engaging and facilitates learning
- Embedded activities enhance the understanding of the text

Note: may apply to either student or teacher editions

4) Connections to Technology

Moderate Evidence

- Integrates technology and reflects the impact of technological advances
- Uses technology in the collection and/or manipulation of authentic data
- Embeds web links as a mathematics resource.

5) Support for Diverse Learners

Little or No Evidence

- Provides support for ESL students
- Provides support for differentiation of instruction in diverse classrooms
- Challenge for gifted and talented students

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- Support for students with learning difficulties
Note: may apply to either student or teacher editions

6) Strengths, Weaknesses, Comments:

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards.

Though the mathematical content is strong, there is a great lack of vocabulary development and connections to reading and writing. There are no accommodations for differentiating instruction in any way. Though graphing calculator technology is emphasized throughout there is little to no use of web investigations.

C. Supports Inquiry and Skill Development	Moderate Evidence
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1) Promotes Inquiry, research and Application of Learning

Moderate Evidence

- Provides opportunities for inquiry and research that includes activities such as gathering information, researching resources, observing, interviewing, and evaluating information, analyzing and synthesizing data and communicating findings and conclusions, formulating authentic questions to deepen and extend mathematical reasoning.
- Requires students to use higher-level cognitive skills (analysis, synthesis, evaluation, generalizing, justifying, etc.)
- Provides activities and projects for students to deepen their knowledge and cultivate and strengthen problem-solving and decision-making skills.
- Provides opportunities for application of learned concepts.
- Uses a variety of relevant charts, graphs, diagrams, number lines, and other illustrations to invite and motivate students to engage in discussion, problem solving, and other high-order thinking skills.
- Emphasizes conceptual understandings that invite students to predict, conclude, evaluate, develop and extend ideas to support reasoning.

Note: may apply to either teacher or student edition

2) Skill Development

Strong Evidence

- Provides opportunities to make sense of all mathematics
- Provides opportunities to recognize, create, and extend patterns.
- Provides opportunities for critical thinking and reasoning.
- Provides opportunities to justify/prove responses.
- Provides opportunities to ask deeper questions.
- Contains embedded activities (or extensions) that emphasize use of technology for problem solving

Note: may apply to either teacher or student edition

3) Strengths, Weaknesses, Comments:

The text is very strong in content, skill development, and application. However, there is little to no opportunity for inquiry and research.

D. Supports Best Practices of Teaching and Learning

Moderate Evidence

1) Engages Students

Moderate Evidence

- Includes content geared to the needs, interests, and abilities of all students
- Engages and motivates students using components such as real-life situations, simulations, experiments, and data gathering.
- Includes information and activities that assist students in seeing relevance of concepts (where appropriate) to their own lives and experiences
- Provides a variety of strategies, activities, and materials to enhance student learning at the appropriate learning levels
- Activities are truly congruent to the concepts addressed, not merely correlated

Note: may apply to either teacher or student edition

2) Uses Assessment to Inform Instruction

Little or No Evidence

- Includes multiple means of assessment as an integral part of instruction
- Provides evaluation measures in the teacher edition that supports differentiated learning activities
- Embedded assessments reflect a variety of Depth of Knowledge levels

Note: may apply to either teacher or student edition

3) Strengths, Weaknesses, Comments:

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards

The text primarily assesses thought problem sets at the end of sections and chapter reviews and tests. There are no evaluations in the teacher text supporting differentiated instruction or assessment. At this level of mathematics it is difficult to have examples and situations that are in the real world of the student. Most are contrived situations.

E. Has an Organization/ Format that Supports Learning and Teaching

Moderate Evidence

1) Organizational Quality

Moderate Evidence

- Print and/or electronic materials present minimal barriers to learners, but also add encouragement for students to stretch and make further explorations.
- Presents chapters/lessons in an organized and logical sequence
- Provides clearly stated objectives for each lesson.
- Uses text features (e.g., titles, headings, subheadings, review questions, goals, objectives, space, print, type size, color) to enhance readability.
- Makes use of various forms of media (e.g., CD's, recordings, videos, cassette tapes, computer software, web-based components, interactive software, calculators, physical and virtual manipulatives) as either student or teacher resources
- Includes clear, accurate, appropriate and clearly explained illustrations and/or graphics that reinforce content standards.
- Incorporates a glossary, footnotes, recordings, pictures, and/or tests that aid pupils and teachers in

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- using the book effectively
- Uses grade-appropriate type size
- Included media are durable, easy to use and have technical merit
- Construction appears to be durable and able to withstand normal use

2) Essential Components (beyond student and teacher text)

Little or No Evidence

- Items identified as essential components support the learning goals and concept coverage of the basal

3) Strengths, Weaknesses, Comments:

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards.

Though the text is well organized and uses text features of heading, tables, and graphs, there are no stated goals or objectives, no glossary, and no inclusion of media. No essential components come with text.

F. Has available Ancillary/ Gratis Materials

Note: The decision whether to recommend or not recommend this resource as a basal should not be influenced by Section F

Strong Evidence

1) Ancillary/Gratis Materials

- Coordinates teacher resources easily with student material (e.g., accompaniments included, student pages shown, instructional technology indicated).
- Are well-organized and easy to use
- Provide substantive learning opportunities and are congruent with student learning goals
- Provide opportunities for high-level thinking, assessment, and/or problem solving
- Provides opportunities for intervention.

2) Strengths, Weaknesses, Comments:

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards.

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